



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,491	09/29/2003	Chun-Ching Wang	TAIW 170	8471

7590 07/05/2005

RABIN & CHAMPAGNE, P.C.
Suite 500
1101 14 Street, N.W.
Washington, DC 20005

EXAMINER

SHUTE, DOUGLAS M

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/671,491	WANG, CHUN-CHING	
	Examiner	Art Unit	
	Douglas M. Shute	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Handwritten mark

Art Unit: 2121

DETAILED ACTION

1. Claims 1-6 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As per claim 2, it recites "a pulse wave pin which, along with the connecting unit, is connected to a data end for receiving and transmitting the specific data from the automation controller." However, the specification (page 4, lines 9-10) recites "The pulse wave pin is connected to the pulse wave end SCL for receiving simulating system clocks ..." as opposed to connecting to the data end per claim 2. Clarification is required.

Art Unit: 2121

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al. (6,584,515) (hereinafter Sakamaki).

7. As per claim 1, Sakamaki shows the invention substantially as claimed having an auxiliary memory device (e.g., Figure 2, element 6) for automation controllers, comprising:
a connecting unit(e.g., Figure 2, the protruding portion of element 6 to which the dotted cable (element 8) may be connected), which is connected to the automation controller (e.g., Figure 2, element 1) for transmitting and receiving a specific datum (e.g., Figure 2, "Working Program");
a storage unit, which contains at least one memory element (e.g., inherent within Figure 2, element 6, and col. 5, lines

Art Unit: 2121

21-22, "stored by the outside input/output unit 6 ...") Sakamaki does not specifically show a switching unit, which is connected to the connecting unit for switching the transmission directions of the specific datum and which is connected to the storage unit. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a switching unit would be necessary in order to select which of plural possible recited data transmission directions was chosen and that this switching unit could be advantageously connected to the storage unit within the auxiliary memory device to most conveniently facilitate data transfer. Sakamaki also does not specifically show a load unit, which contains a plurality of load components connecting to a work power supply for receiving the work power and generating a load. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that all (or any portion) of the elements making up the auxiliary memory device would be connected to some sort of power supply in order to function and that these elements would constitute a load to such power supply.

8. As per claim 2, as best understood, it is rejected for reasons as given above for claim 1. Further, it would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2121

invention was made that the storage unit of the auxiliary memory device could include a power supply pin, which is connected to the work power supply for receiving the work power; a ground pin, which, along with the connecting unit, is connected to a ground end to form a ground loop; a pulse wave pin which, along with the connecting unit, is connected to a data end for receiving and transmitting the specific data from the automation controller as it is well-known in the data storage technology area that memory devices could be connected to a power supply (with respective ground) via pins in order to function, that a clock input pin (i.e., "pulse wave pin") could also be provided for connection to a clock to synchronously move data in or out of the memory and that the memory could utilize a pin (i.e., "data pin") to or from which data could be provided or obtained, respectively.

9. As per claim 3, it is rejected for reasons as given above for claim 1. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the auxiliary memory device could transmit the specific datum in the storage unit to the automation controller when the switching unit is closed as a single pole, single throw switch per se represents a well-known type of switching unit and that

Art Unit: 2121

the datum could be moved from the storage unit to the automation controller when the switch was in either of its two possible positions representing data transmission directions (i.e., closed in this case).

10. As per claim 4, it is rejected for reasons as given above for claim 1. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the auxiliary memory device could receive the specific datum in the storage unit from the automation controller when the switching unit is open as a single pole, single throw switch per se represents a well-known type of switching unit and that the datum could be moved from the automation controller to the storage unit when the switch was in either of its two possible positions representing data transmission directions (i.e., open in this case).

11. As per claim 5, it is rejected for reasons as given above for claim 1. Further Sakamaki shows the connecting unit is an RS232 interface (e.g., col. 5, lines 34-35).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al. (6,584,515) (hereinafter

Art Unit: 2121

Sakamaki) in view of Aguilar et al. (6,269,444) (hereinafter Aguilar).

13. As per claim 6, it is rejected for reason as given above for claim 1. However, Sakamaki does not specifically show the the load components could further comprise:

a first load component, which is a resistor for generating a load between the work voltage and the switching unit;

a second load component, which is a resistor for generating a load between the work voltage and the pulse wave pin; and

a third load component, which is a resistor for generating a load between the work voltage and the data pin. Aguilar shows the well-known use of pull-up resistors (e.g., Figure 1, elements R1 and R7) attached to various circuit points to maintain nodes at high levels in the absence of other levels being applied to the respective nodes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the pull-up resistors of Aguilar in the system of Sakamaki in order to connect the switching unit, the pulse wave input and the data pin to the work voltage to provide a high level at these points in the absence of other signals attached thereto and thus provide a load to the switching unit, the pulse wave input and the data pin, thereby enhancing the overall operation and reliability of Sakamaki.

Art Unit: 2121

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas M. Shute whose telephone number is (571) 272-3690. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



June 22, 2005



Anthony Knight
Supervisory Patent Examiner
Group 3600